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Federal Communications Commission
Office of the Secretary

Telocator Petition For
Rulemaking to Amend Part 22 of
the Commission's Rules Concerning
The Use of 930-931 MHz For An
Advanced Messaging Service

RM-76-17

Metriplex hereby submits comments in support of 930-931 MHz frequency allocation for new Advanced Messaging Services ("AMS"). Metriplex, a telecommunications company that provides hardware, software, and subscriber services directly to endusers, is currently engaged in providing enhanced information services via existing alphanumeric paging. Metriplex feels that future growth and development of more advanced services which would be of direct benefit to the American industrial, business, and consumer sector are greatly hampered, if not precluded, by lack of spectrum.

Metriplex's alphanumeric information services have been well received by the American financial community. Customers require large volumes of data and are increasingly asking for the

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transmission of graphics and other types of information requiring high data rates. Our current services are operating over conventional radiopaging channels, but in many cases cause system overload due to system design, modulation techniques, and conflict with conventional radiopaging techniques (e.g. accuracy of synchronization, message queue management, and control techniques)*. Thus we feel there is a strong need for a dedicated spectrum allocation for messaging and information services, as opposed to traditional beeper service.

The American commercial and consumer markets would be better served by a more efficient, technically advanced, high-speed data network that was provided over a wide area, on a geographically insensitive basis.

Messaging vs. Beeping

Metriplex thinks of "messaging" as the transmission and reception of pieces of information which are intrinsically useful. That is while it may be desired in certain cases to send an acknowledgement of reception or a query for additional information, the recipient is not being told to merely call a telephone number. Our experience and success with one-way alphanumeric radiopaging

* Our studies show that the channel data rate must be increased by at least a factor of five and perhaps as much as a factor of 10.



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suggests that there is a need for acknowledgement and additional query by subscriber. This suggests that an additional need in messaging is the provision of a secondary signalling channel either in-band or on a secondary frequency.

Paging has long demonstrated its ability to use spectrum with extremely high efficiency. It is not uncommon to find as many as 60,000 subscribers using one NBFM channel. This is in stark contrast to the tens or even hundreds of MHz which are currently required or requested for other services.

Advanced Messaging Services under development by Metriplex are for example: 1) Integration of Mobile and Hand-held computing devices (i.e. laptop and "palmtop" computers) with fixed location database servers and libraries, and 2) Telemetry of industrial plant process control data, 3) Rapid response medical data telemetry, 4) Integrated messaging and radio positioning, and 5) Expanded financial information systems,

The large volumes of data required for these applications are not compatible with currently operating radiopaging channels because the airtime requirements are too high. It is therefore not possible to offer and fully develop these services. While radiopaging is highly efficient, it cannot support services envisaged for AMS.



II. NATURAL PROGRESSION

IMTS service demonstrated the need for mobile radiotelephones in ground vehicles. Cellular service was not possible and could not grow until sufficient and large amounts of spectrum were allocated. In a similar fashion, one-way radiopaging has paved the way for initial services that represent the vanguard of AMS. Just as cellular required spectrum to be successful, so does AMS.

AMS can be offered and be commercially successful in the near future if spectrum is available. We feel that this is in contrast to various PCN and CT-2 schemes which are not well-defined and which have not demonstrated commercial viability (e.g. BYPS and ZonePhone in the U.K.).

III. The Need for Mobile Information

Metriplex has received numerous customer requests to integrate laptop and "palmtop" computers with fixed database and library servers over wide geographic areas (e.g. North America). It is frequently necessary to broadcast/transmit the same data to many thousands of users at the same time. Dedicated AMS spectrum would enable this to occur as the data requirements are much greater.

While cellular is often posited as a means of point-to-point data communications, it only allows communications with one user at a time.



IV. Economy of Scale

Several technical and economic factors enhance AMS's ability to deliver a wide range of services in the 930-931 MHz spectrum. 900 MHz is particularly attractive since there are several suppliers who already produce radio products for this spectrum; this will ensure the availability of low-cost equipment. The urbanization of America requires adequate building penetration; 900 MHz is well suited for this task. This combination will enable AMS providers to offer a highly cost-effective system that will benefit both business and consumer users.

V. Applications

1. Laptops and Palmtops

Americans are becoming more mobile every day with the need to be kept constantly up-to-date with a wide variety of information. Palmtop and laptop computers are the mechanisms via which much of the future of personal communications will be based. Laptop computers are by far the fastest growing segment of the computer market. Hand-held computers will enjoy exponential growth as chip technology reduces the cost and size of the device. This ability to receive, store, and analyze information will drive personal communications use in the 1990's. Portable, and truly mobile communications requires not only the need to converse accurately and effectively, but to communicate over a wide geographic area.



A small device with a useful display will find a large customer market.

2. Industrial Telemetry

Customers have requested systems which will notify when important events or exceptions occur. Because of the volumes of data required to provide a clear picture of plant operation and the necessity for high-speed transmission, more precise channel control and synchronization is paramount.

3. Rapid Response Medical Data Telemetry

The medical community has suggested that better patient care at lower cost would result from more rapid coordination of multiple procedures occurring within hospitals. There is a need for rapid communication of large volumes of patient data using mobile means.

VI. SUMMARY: Maintaining America's Competitive Communications Edge

We feel that the United States can increase its lead in the global marketplace by keeping its decision makers well informed through cost-effective communications. We feel that the public interest is well-served by keeping people informed twenty-four hours a day. A synchronized, high-speed nationwide AMS network will best accomplish this task by its ability to disseminate a wide range of information. Networks require uniform standards; thus AMS should be made available on a nationwide basis.



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There is no currently available spectrum that meets AMS requirements. A larger number of users would be served by AMS in comparison to other competing technologies. This has been shown by conventional radiopaging's ability to serve well over 10 million users with limited spectrum.

Respectfully Submitted,

Steve Stutman

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President

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